

November 26, 1954

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Monadnock Block
Chicago 4, Illinois

Re: Philip Morris & Company Ltd., Inc.
Swedish Pat. Appln. No. 7893/54
U. S. Serial No. 383,122
DuPuis & Lieser

Dear Mr. Foxgrover:

We have your letter of November 12 enclosing the official action in the above entitled application and inviting our comments.

Our invention is directed primarily at a mouthpiece type cigarette comprising tobacco and a filter containing at least 5% by weight of polyhydric alcohol. Claims 1 through 10 were drawn broad enough to cover a tobacco product which would include filter plugs for cigarette holders, pipes, etc.

None of the references cited in the Swedish application were cited by the United States Patent Office. Our problem in the prosecution of the United States application was to overcome a reference such as Hibbert, U. S. patent No. 1,407,274 and one such as Copell, No. 1,950,542.

The Hibbert reference discloses the use of a 1,2 glycol as a humectant on tobacco filler; 3% is disclosed as the amount used on filler and up to 5% on plug tobacco.

The Copell reference discloses a mouthpiece in which the filter contains a small amount of sugar.

To distinguish from these references claims 1 through 10 were amended to limit our invention to a mouthpiece type cigarette comprising tobacco and a filter containing at least 5% by weight of polyhydric alcohol having not more than six hydroxyl groups. In this manner sucrose or cane sugar is eliminated since it contains twelve carbon atoms and our specification has limited our disclosure to hexahydric alcohols.

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It was our further thought that we must distinguish from the contention that our invention includes the use of tobacco itself as a filter material. Our invention was intended, and the disclosure so shows, that polyhydric alcohol is added to an auxiliary filter material which does not include tobacco. The reason for this can be quite readily understood by referring to our examples in which in all cases the control was a cigarette which had been treated with a 1,2 glycol. Any improvement we have shown is over this type of regular cigarette.

We have also defined in our specification on page one that the term "mouthpiece cigarette" is a cigarette having at one end a mouthpiece which may comprise a hollow tube or plug inserted within the end of the cigarette which is received in the mouth. While we have acknowledged that past investigators have suggested tobacco in a mouthpiece type cigarette, our specific disclosure of the operable filter materials does not include tobacco. For your information, the early investigator who suggested that an auxiliary plug of tobacco be placed in the mouthpiece did so so as to use cheaper tobacco in the mouthpiece than in the body of the cigarette since no one smokes a cigarette down as far as the mouthpiece.

Since our invention should not be limited solely to a mouthpiece type cigarette, we canceled claims 11 through 20 and rewrote the claims in Markush form listing the specific filter materials and also limiting the polyhydric alcohol to one having not more than six hydroxyl groups.

The following new claim 21 substituted for claim 11 reads as follows:

21. A filter of the class described comprising a material selected from the group consisting of cotton-crepe, viscose, cellulose, cellulose acetate, cotton, crepe-paper, aluminum foil, asbestos, glass wool, synthetic fibers and protein fibers containing at least 5% by weight of a polyhydric alcohol having not more than six hydroxyl groups.

If the examiner prefers the Markush form, we would be willing to amend claims 1 through 10 to limit them to the specific filter type material. This we will learn from our next rejection or by personal interview.

The principal reference cited in the Swedish application is United States patent No. 1,967,556. You will note that if the Swedish application were amended to limit the polyhydric alcohol to one containing not more than six hydroxyl groups there would be 2% or less polyhydric alcohol disclosed in the reference. This is based on the elimination of both the maple sugar, which is chiefly sucrose, and cane sugar. These are $C_{12}H_{22}O_{11}$ type sugars. In addition this does not meet the definition of a mouthpiece type cigarette as it is basically

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tobacco which has been treated. We would have no objection if the claims were amended to specify that the mouthpiece type cigarette comprised tobacco and an auxiliary filter containing at least 5% by weight of polyhydric alcohol having not more than six hydroxyl groups.

Claims 11 through 20 which are broader than the mouthpiece type cigarette itself may be amended, if Swedish practice permits, to include the specific filter materials disclosed such as we have done in the United States application.

The French patent No. 852,705 is limited to the use of crystals or plugs of bitartrates which may be treated with either C_{12} 's or C_6 sugars. It is thought that the suggested limitation of claims 1 through 10 to a mouthpiece type cigarette would escape this reference. Furthermore, the suggested listing of the specific filter materials in claims 11 through 20 would also escape this reference.

German patent No. 124,523 is the only one which discloses the impregnation of cotton on filter paper with a chemical. While the active ingredient is a heavy metal salt such as palladium and platinum together with certain acids, it also discloses that a small amount of glycerine may be used. We feel that this is not a proper disclosure of a specific amount of polyhydric alcohol which we teach is the active ingredient and not an auxiliary material. If need be the claims could be limited to point out that the polyhydric alcohol is the active chemical ingredient. We hesitate to suggest that the word "consisting" be used rather than "comprising." We would like to save that until other attempts are exhausted.

The rejection that the claims are not in proper form since it does not appear upon what the percent by weight is calculated is noted. Our examples point out that the plugs alone were treated with a polyhydric alcohol and that the weight was based on the total weight of the filter plug. On page seven of the specifications it is pointed out that the polyhydric alcohol constitutes at least 5% by weight of the filter plug. Rereading the claims we feel they are clear in pointing out that the filter contains at least 5% by weight of polyhydric alcohol. You have much more experience in knowing what form the examiner would prefer.

If there are questions that you have which may assist you in preparing the amendment, please let us know.

Very truly yours,

PHILIP MORRIS & CO. LTD., INC.

R. J. Leahy
Technical Service Manager

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